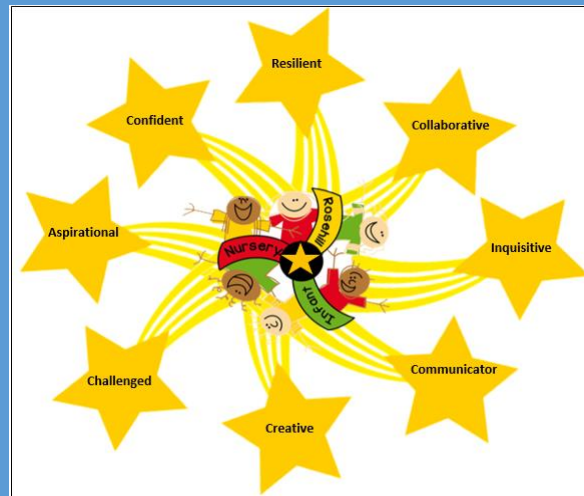


Curriculum Coverage and Progression of Knowledge and Skills in Science



SKILLS IN SCIENCE FOR EYFS

1. Ask questions

Demonstrate curiosity about the world around them.

2. Make predictions

With support or prompting, talk about what they think might happen based on their own experiences.

3. Decide how to carry out an enquiry

Respond to prompts to say what happened to objects, living things or events.

4. Take measurements

Use senses and simple equipment to explore the world around them, e.g. binoculars and magnifying glasses.

5. Record data

Talk to an adult about what has been found/found out.

6. Present data

Talk to an adult about what has been found/found out.

7. Answer questions using data.

With support, explain why some things occur.

8. Draw conclusions

With support, talk about what they have found out or what they think might happen next/ change based on their own experiences.

ONGOING THROUGH THE YEAR Science is covered throughout the year through weekly themes taken from the interests of the children. Weekly enhanced provision is planned to ensure the children have the opportunity to explore Science skills independently throughout the week.

Nursery	Curriculum Objective	Knowledge/Skills
<p>Autumn Term One</p> <p><i>Me and My Community</i></p> <p><i>Autumn</i></p>	<p>3 and 4 Year Olds</p> <ul style="list-style-type: none"> • Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Talk about what they see, using a wide vocabulary • Plant seeds and care for growing plants. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things • Explore and talk about different forces they can feel. • Talk about the differences between materials and changes they notice. 	<p>Animals, including humans</p> <ul style="list-style-type: none"> • begin to recognise and identify the main parts of the body (human link). • opportunities to explore the 5 senses through practical sensory activities • begin to understand the importance of looking after themselves through good everyday hygiene • Eating healthy snacks and talk about importance of a healthy diet. • Name healthy snacks and fruits that are shared at snack time • Talk about ways to keep healthy and safe.
<p>Autumn Term Two</p> <p><i>Sparkle and Shine</i></p>	<p>3 and 4 Year Olds</p> <ul style="list-style-type: none"> • Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Talk about what they see, using a wide vocabulary • Plant seeds and care for growing plants. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things • Explore and talk about different forces they can feel. • Talk about the differences between materials and changes they notice. 	<p>Everyday materials</p> <ul style="list-style-type: none"> • Comment on everyday materials. • Ask questions about materials. • Investigate melting • Explore water • Materials – shiny/not shiny • Sources of light – candles, tea lights, torches, battery powered lights. • Comparing and grouping objects and materials according to simple given criteria.
<p>Spring Term</p> <p><i>Spring 1</i></p> <p><i>Winter</i></p> <p><i>Wonderland</i></p>	<p>3 and 4 Year Olds</p> <ul style="list-style-type: none"> • Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Talk about what they see, using a wide vocabulary • Plant seeds and care for growing plants. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things • Explore and talk about different forces they can feel. • Talk about the differences between materials and changes they notice. 	<p>Seasonal changes</p> <ul style="list-style-type: none"> • Go for walks in the different seasons and make observations about what they see, feel and hear and the changes they notice • Explore the weather every day • Changes – change of weather, temperature and rainfall in summer and winter • Understand how to keep themselves safe in winter e.g. how to dress to keep warm

<p><i>Spring 2 Once Upon a Time</i></p>	<p>3 and 4 Year Olds</p> <ul style="list-style-type: none"> • Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Talk about what they see, using a wide vocabulary • Plant seeds and care for growing plants. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things • Explore and talk about different forces they can feel. • Talk about the differences between materials and changes they notice. 	<p>Animals, including humans</p> <ul style="list-style-type: none"> • Begin to name different animals • Develop an understanding of different types of animals and their features (e.g. giraffes have long necks). • Show care for animals in the environment. • Name the basic parts of an animal. • Make observations of animals (watching caterpillars change into butterflies)
<p>Summer Term</p> <p><i>Summer 1 - Sunshine & Sunflowers & Creep, Crawl & Wriggle</i></p>	<p>3 and 4 Year Olds</p> <ul style="list-style-type: none"> • Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Talk about what they see, using a wide vocabulary • Plant seeds and care for growing plants. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things • Explore and talk about different forces they can feel. • Talk about the differences between materials and changes they notice. 	<p>Plants</p> <ul style="list-style-type: none"> • Ask questions about plants e.g., Why do flowers/seeds/bulbs grow or not grow? • Develop an understanding of how plants grow. • Learn about what plants need to grow through hands on experience (sunlight, water, soil). • Talk about why plants need sun, water and soil. • Show care for plants in the environment. • Talk about basic parts of a plant (roots, flower, stem). • Explore different leaf shapes. • Experience planting in the garden and observing the changes over time • Make simple observations of plants • Explore change over time, for example, growing plants • Explore how different conditions affect the growth of a plant/seed (Why do seeds need light to grow?)
<p><i>Summer 2 - Animal Safari & Big Wide World</i></p>	<p>3 and 4 Year Olds</p> <ul style="list-style-type: none"> • Use all their senses in hands-on exploration of natural materials. • Explore collections of materials with similar and/or different properties. • Talk about what they see, using a wide vocabulary • Plant seeds and care for growing plants. • Understand the key features of the life cycle of a plant and an animal. • Begin to understand the need to respect and care for the natural environment and all living things • Explore and talk about different forces they can feel. • Talk about the differences between materials and changes they notice. 	<p>Living things and their habitats</p> <ul style="list-style-type: none"> • Knowing ways to care for their local environment. • Begin to understand why and how questions • Ask questions about living things. • Ask questions about where animals live. • Show care and concern for living things and the environment.

Working Scientifically

<p>Observing:</p> <ul style="list-style-type: none"> • talk about what they see • recognise and name • can describe items, observing simple features 	<p>Predicting and planning:</p> <ul style="list-style-type: none"> • have an idea about what might happen 	<p>Questioning:</p> <ul style="list-style-type: none"> • begin to ask questions based on the world around them • begin to ask questions based on own fascinations 	<p>Performing:</p> <ul style="list-style-type: none"> • explore using appropriate senses • Be able to see /hear/touch and smell things which are different 	<p>Identifying and classifying:</p> <ul style="list-style-type: none"> • to sort groups of objects and begin to explain reasons for sorting 	<p>Recording:</p> <ul style="list-style-type: none"> • contribute to simple charts, eg: class record of observations and results as table, bar chart • use ICT to record observations eg: camera 	<p>Evaluating:</p> <ul style="list-style-type: none"> • talk about what they notice in simple terms. • to make simple comparisons • To be able to say why things are the same, different and begin to say why they think this is the case.
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By the end of Nursery

ONGOING THROUGH THE YEAR Science is covered throughout the year through weekly themes taken from the interests of the children. Weekly enhanced provision is planned to ensure the children have the opportunity to explore Science skills independently throughout the week.

Reception	Curriculum Objective	Knowledge/Skills
<p>Autumn Term One</p> <p><i>Me and My Community</i></p>	<p>Understanding the World - The Natural World ELG Children at the expected level of development will:</p> <ul style="list-style-type: none"> • Explore the natural world around them • making observations and drawing pictures of animals and plants; • Recognise some environments that are different to the one in which they live. • Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been taught in class; • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. 	<p>Prior learning Animals, including humans</p> <ul style="list-style-type: none"> • begin to recognise and identify the main parts of the body (human link). • opportunities to explore the 5 senses • Name healthy snacks and fruits • Talk about ways to keep healthy and safe. <p>Animals, including humans</p> <ul style="list-style-type: none"> • Identify the parts of the body (human link). • Know the 5 senses. • Know the function of the body parts linked to 5 senses. • Understand what good hygiene looks like. • Know what makes a healthy diet. • Talk about ways to keep healthy and safe. • Understand effects of exercise on the body i.e. breathless.
<p>Autumn Term Two</p> <p><i>Exploring Autumn</i></p> <p><i>Sparkle and Shine</i></p>	<p>Understanding the World - The Natural World ELG Children at the expected level of development will:</p> <ul style="list-style-type: none"> • Explore the natural world around them • making observations and drawing pictures of animals and plants; • Recognise some environments that are different to the one in which they live. • Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been taught in class; • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. 	<p>Prior learning Everyday materials</p> <ul style="list-style-type: none"> • Comment on everyday materials. • Investigate melting • Materials – shiny/not shiny • Comparing and grouping objects and materials according to simple given criteria. <p>Everyday Materials</p> <ul style="list-style-type: none"> • Explore a variety of different materials. • Explore the properties of different materials. • Name a variety of materials. • Describe a variety of materials. • Sort and classify materials. • Compare the similarities and differences of materials. • Explore floating and sinking through using a variety of materials.
<p>Spring Term One</p> <p><i>Winter wonderland</i></p>	<p>Understanding the World - The Natural World ELG Children at the expected level of development will:</p> <ul style="list-style-type: none"> • Explore the natural world around them • making observations and drawing pictures of animals and plants; • Recognise some environments that are different to the one in which they live. • Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been taught in class; • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. 	<p>Prior learning Seasonal changes</p> <ul style="list-style-type: none"> • Go for walks in the different seasons and make observations • Explore the weather every day • Understand how to keep themselves safe in winter e.g. how to dress to keep warm <p>Seasonal changes</p> <ul style="list-style-type: none"> • Children know about similarities and differences in relation to: • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. • Describe daily weather include sunny, rainy, windy, cloudy, warm or cold. Weather is warmer in the summer with more sunshine and colder in the winter with more snow, hail and rain. • Describe simply how weather changes as the seasons change. • Name the four seasons. • Describe the features of the four seasons. • Compare the features of the four seasons. • Identify clothing worn in different seasons.

<p>Spring Term Two</p> <p><i>Once upon a time</i></p>	<p>Understanding the World - The Natural World ELG Children at the expected level of development will:</p> <ul style="list-style-type: none"> • Explore the natural world around them • making observations and drawing pictures of animals and plants; • Recognise some environments that are different to the one in which they live. • Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been taught in class; • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. 	<p>Prior learning Animals, including humans</p> <ul style="list-style-type: none"> • Begin to name different animals • Develop an understanding of different types of animals and their features • Make observations of animals (watching caterpillars change into butterflies) <p>Animals, including humans</p> <ul style="list-style-type: none"> • Ask questions about animals. • Name different animals. • Sorting/classifying animals by characteristics/ features. • Similarities and differences between animals • Understand the life cycle of an animal. • Explain why things occur.
<p>Summer Term One</p> <p><i>Sunshine and Sunflowers</i></p>	<p>Understanding the World - The Natural World ELG Children at the expected level of development will:</p> <ul style="list-style-type: none"> • Explore the natural world around them • making observations and drawing pictures of animals and plants; • Recognise some environments that are different to the one in which they live. • Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been taught in class; • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. 	<p>Prior learning Plants</p> <ul style="list-style-type: none"> • Learn about what plants need to grow through hands on experience (sunlight, water, soil). • Talk about basic parts of a plant (roots, flower, stem). • Make simple observations of plants <p>Plants</p> <ul style="list-style-type: none"> • Make observations of plants. • Name different plants. • Name the different parts of a plant. • Sorting/classifying plants by characteristics • Similarities and differences between plants • Understand the basic life cycle of a plant • Explain why things occur • To observe how a plant grows.
<p>Summer Term Two</p> <p><i>Moving On</i></p> <p><i>Are we there yet</i></p>	<p>Understanding the World - The Natural World ELG Children at the expected level of development will:</p> <ul style="list-style-type: none"> • Explore the natural world around them • making observations and drawing pictures of animals and plants; • Recognise some environments that are different to the one in which they live. • Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been taught in class; • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. 	<p>Prior learning Living things and their habitats</p> <ul style="list-style-type: none"> • Knowing ways to care for their local environment. • Show care and concern for living things and the environment. <p>Living things and their habitats</p> <ul style="list-style-type: none"> • To name different habitats. • To describe different habitats. • To compare similarities and differences between habitats. • Match animals to their correct habitat • Can give explanations as to why that animal lives there.

Working Scientifically

<p>Observing:</p> <ul style="list-style-type: none"> • describe what they see happen • can describe items, observing simple features • observe main effects and describe changes they notice • Use simple equipment to help them make observations • Talk about changes with the seasons 	<p>Predicting and planning:</p> <ul style="list-style-type: none"> • have an idea about what might happen and discuss different things that might happen in small groups and whole class 	<p>Questioning:</p> <ul style="list-style-type: none"> • to ask questions based on the world around them • to ask questions based on own fascinations 	<p>Performing:</p> <ul style="list-style-type: none"> • explore using appropriate senses • Be able to see /hear/touch and smell things which are different • can use very simple equipment related to task • know what to look for • Perform a simple test? • Describe/ explain what they have done? 	<p>Identifying and classifying:</p> <ul style="list-style-type: none"> • to sort groups of objects and begin to explain reasons for sorting • Identify and classify things they observe? • Think of some questions to ask? • Answer some scientific questions? • Give a simple reason for their answer? • Explain what they have found out? • Talk about how environments are different and similar 	<p>Recording:</p> <ul style="list-style-type: none"> • label simple pictures and diagrams • Show their work using pictures, labels and captions? • Record findings • contribute to simple charts, eg: class record of observations and results as table, bar chart • use ICT to record observations eg: camera 	<p>Evaluating:</p> <ul style="list-style-type: none"> • talk about what they notice in simple terms. • talk about whether they think the test is fair and begin to say why. • to make simple comparisons • To be able to say why things are the same, different and begin to say why they think this is the case.
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By the end of Reception

As a scientist,

- Children can observe plants, animals and seasonal changes within their local environment.
- Children can talk about and discuss with peers and adults, some of the things they have observed such as, animals and plants.
- Children can answer 'why' and 'how' questions in response to the observations made of plants, animals, seasonal changes, the weather and habitats of animals.
- Children can talk about the importance of good physical exercise and can understand the effects that activity has on the body E.g. – breathlessness.
- Children can identify the bodies 5 senses (touch, taste, smell, hear and see) and know what body function is linked to each sense.
- Children use their senses to scientifically explore their local environment E.g. – looking at plants, animals, habitats etc.
- Children learn to manage their own personal hygiene and can verbalise how good hygiene practices continue to keeping healthy and safe.
- Children can discuss growth, decay and changes overtime in relation to scientific enquiry e.g. – the lifecycle of a plant, seasonal changes and the weather.
- Children can discuss similarities and differences in relation to animal's habitats, various materials, animals (features etc.), plants and weather patterns.
- Children can discuss observations on living things with peers and adults. They can talk about the similarities and differences between them and the changes throughout their lifecycles e.g a butterfly, a chick etc.

Greater Depth in Science

EYFS

EYFS			
<p style="text-align: center;">Observing closely</p> <ul style="list-style-type: none"> • Can they find out by watching, listening, tasting, smelling and touching? • Can they give reasons for their answers? 	<p style="text-align: center;">Performing Tests</p> <ul style="list-style-type: none"> • Can they give reasons for their answers? 	<p style="text-align: center;">Identifying and Classifying</p> <ul style="list-style-type: none"> • Can they discuss similarities and differences? • Can they explain what they have found out using scientific vocabulary? • Can they give reasons for their answers? 	<p style="text-align: center;">Recording findings</p> <ul style="list-style-type: none"> • Can they compare measurements? • Can they give reasons for their answers?

Year 1	Curriculum Objective	Knowledge/Activity
<p>Autumn Term One</p> <p><i>Superheroes</i></p>	<p>Animals, including humans</p> <ul style="list-style-type: none"> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Identify and name a variety of common animals that are carnivores, herbivores and omnivores <p>Seasons and how they change</p> <ul style="list-style-type: none"> Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies. <p>Key questions:</p> <ul style="list-style-type: none"> How long does it take for the ground to dry after it has been raining? Does more rain take longer to dry? Do countries with higher temperatures have less rain? How does rainfall and temperature change over time in our school grounds? Which leaf is the strongest/best shade cover/best at directing water? Why do you think leaves turn brown in Autumn? What do you notice about different leaves? What colours can we find outside? Does this change across the seasons? What effect does rain have on the environment? What would happen if there was too much rain? What would happen if there wasn't enough rain? 	<p>Prior learning –</p> <p>Animals, including humans</p> <p>In Early Years children should:</p> <ul style="list-style-type: none"> be able to identify different parts of their body. Have some understanding of healthy food and the need for variety in their diets. Be able to show care and concern for living things. Know the effects exercise has on their bodies. • Have some understanding of growth and change. Can talk about things they have observed including animals <p>Seasonal Change</p> <p>In Early Years children should:</p> <ul style="list-style-type: none"> Developing an understanding of change. Observe and explain why certain things may occur (e.g. leaves falling off trees, weather changes). Look closely at similarities, differences, patterns and change. Comments and questions about the place they live or the natural world <p>Animals, including humans</p> <ul style="list-style-type: none"> Identify, name, draw and label the basic parts of the human body and say which part of the human body is associated with each sense. Describe in simple terms the life-cycle of a familiar animal such as a frog, butterfly or human. Identify the basic needs of animals and humans for survival, including good nutrition (eating the right amount of different types of food), regular exercise and hygiene <p>Seasonal Change:</p> <ul style="list-style-type: none"> Name a range of different types of weather from pictures or sounds Describe some positive and negative effects of the weather for ourselves and our environment Observe and record the weather on a chart or a table Observe and describe weather associated with the seasons Understand how day length varies over a year and link to the different seasons
<p>Autumn Term Two</p> <p><i>Paws, Claws and Whiskers</i></p>	<p>Animals, including humans</p> <ul style="list-style-type: none"> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Identify and name a variety of common animals that are carnivores, herbivores and omnivores <p>Key questions:</p> <ul style="list-style-type: none"> What do animals eat? Do all animals eat the same food? Which of our senses is the most accurate at identifying food? Do all animals hunt? Why are animals different colours and patterns? 	<p>Prior learning in Year 1</p> <ul style="list-style-type: none"> Identify, name, draw and label the basic parts of the human body and say which part of the human body is associated with each sense. Describe in simple terms the life-cycle of a familiar animal such as a frog, butterfly or human. Identify the basic needs of animals and humans for survival, including good nutrition (eating the right amount of different types of food), regular exercise and hygiene <p>Animals, including humans:</p> <ul style="list-style-type: none"> Identify and name a range of common animals from the local environment Name (classify) and sort familiar animals according to whether they are invertebrates, fish, amphibians, reptiles birds or mammals. Compare animals that are kept as pets, knowing which group they belong to. Name animals living in a range of familiar environments, such as their homes, woodland or school grounds. Explain how to take care of an animal from the local habitat Can they point out some of the differences between different animals? Can they sort photographs of living things and non-living things? Name a range of domestic animals? Compare the bodies of different animals? Name the parts of an animal's body?

<p>Spring Term One</p> <p><i>Moon Zoom</i></p>	<p>Materials</p> <ul style="list-style-type: none"> Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials, including wood, metal, plastic, glass, water and rock, Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials based on their simple properties <p>Seasons and how they change</p> <ul style="list-style-type: none"> Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies. <p>Key questions:</p> <ul style="list-style-type: none"> How long does it take for the ground to dry after it has been raining? Does more rain take longer to dry? Do countries with higher temperatures have less rain? How does rainfall and temperature change over time in our school grounds? Which leaf is the strongest/best shade cover/best at directing water? Why do you think leaves turn brown in Autumn? What colours can we find outside? Does this change across the seasons? What effect does rain have on the environment? What would happen if there was too much rain? What would happen if there wasn't enough rain? 	<p>Prior learning in Reception</p> <p>In Early Years children should:</p> <ul style="list-style-type: none"> be able to ask questions about the place they live. Talk about why things happen and how things work. Discuss the things they have observed such as natural and found objects. Manipulates materials to achieve a planned effect <p>Everyday Materials:</p> <ul style="list-style-type: none"> Distinguish between an object and the material from which it is made? Explain what material objects are made from? Explain why a material might be useful for a specific job? Name some different everyday materials? e.g. wood, plastic, metal, glass and rock Sort materials into groups by a given criteria? Explain how solid shapes can be changed by squashing, bending, twisting and stretching? Group and sort materials according to their simple physical properties Identify the material an object is made from, suggesting why it is made from that material Identify some materials that help physical processes (e.g. woollen fabrics keeps us warm) Describe the properties of a material using everyday language or simple scientific vocabulary (e.g. hard/soft, bendy/not bendy) <p>Seasonal Change:</p> <ul style="list-style-type: none"> Name a range of different types of weather from pictures or sounds Describe some positive and negative effects of the weather for ourselves and our environment Observe and record the weather on a chart or a table Observe and describe weather associated with the seasons Understand how day length varies over a year and link to the different seasons
<p>Spring Term Two</p> <p><i>Dinosaur Planet</i></p>	<p>Animals, including humans</p> <ul style="list-style-type: none"> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Identify and name a variety of common animals that are carnivores, herbivores and omnivores 	<p>Prior learning in Year 1</p> <p>Name (classify) and sort familiar animals according to whether they are invertebrates, fish, amphibians, reptiles birds or mammals.</p> <p>Animals, including humans:</p> <ul style="list-style-type: none"> Identify and name a variety of common animals that are carnivores, herbivores and omnivores and how we might know this from their physical appearance. Describe how an animal is suited to its environment? Identify and name a variety of common animals that are carnivores, herbivores and omnivores? Classify animals by what they eat? (carnivore, herbivore, omnivore)
<p>Summer Term One</p> <p><i>The Enchanted Woodland</i></p>	<p>Plants</p> <ul style="list-style-type: none"> Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants. Identify and name the roots, trunk, branches and leaves of trees <p>Key questions:</p> <ul style="list-style-type: none"> How do Plants grow? What do Plants need to grow? Do all plants need water? Are all plants green? Why do seeds look different? Can plants grow as big in the shade? What is the biggest/smallest/smelliest (etc) tree/flower/plant on the planet? 	<p>Prior learning in Reception</p> <p>In EYFS Children should:</p> <ul style="list-style-type: none"> Make observations of plants Know some names of plants, trees and flowers May be able to name and describe different plants, trees and flowers Show some care for their world around them <p>Plants</p> <ul style="list-style-type: none"> Identify and name a variety of common flowers and trees growing in the locality Identify, name and sort a variety of deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants and trees (root, stem, stalk, leaves, flowers, bulb, fruit, seeds and trunk) Identify their locality as a habitat for living things. Care for a growing seedling, observing and describing it's growth. Identify the seeds and understand that they will make a whole new plant. Describe how plants change over time, including seasonal changes (leaves fall off, blossom, buds opening) Name, compare and contrast familiar plants according to their observable features.

<p>Summer Term Two <i>Bright Lights, Big City</i></p>	<p>Materials</p> <ul style="list-style-type: none"> Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials, including wood, metal, plastic, glass, water and rock, Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials based on their simple properties <p>Seasons and how they change</p> <ul style="list-style-type: none"> Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies. <p>Key questions:</p> <ul style="list-style-type: none"> How long does it take for the ground to dry after it has been raining? Does more rain take longer to dry? Do countries with higher temperatures have less rain? How does rainfall and temperature change over time in our school grounds? Which leaf is the strongest/best shade cover/best at directing water? Why do you think leaves turn brown in Winter? What colours can we find outside? Does this change across the seasons? What effect does rain have on the environment? What would happen if there was too much rain? What would happen if there wasn't enough rain? 	<p>Prior learning:</p> <ul style="list-style-type: none"> Name a range of everyday materials, including wood, plastic, metal, rock and glass. Group and sort materials according to their simple physical properties Identify the material an object is made from, suggesting why it is made from that material Identify some materials that help physical processes (e.g. woollen fabrics keeps us warm) <p>Everyday Materials:</p> <ul style="list-style-type: none"> Compare two or more materials for their performance at a particular task (e.g. mopping up a spill) Describe things that are similar and different between materials? Explain what happens to certain materials when they are heated, e.g. bread, ice, chocolate? Explain what happens to certain materials when they are cooled, e.g. jelly, heated chocolate? <p>Additional: Begin to investigate forces by designing and constructing a moving vehicle</p> <p>Seasonal Change:</p> <ul style="list-style-type: none"> Name a range of different types of weather from pictures or sounds Describe some positive and negative effects of the weather for ourselves and our environment Observe and record the weather on a chart or a table Observe and describe weather associated with the seasons Understand how day length varies over a year and link to the different seasons.
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Working Scientifically

<p>Observing:</p> <ul style="list-style-type: none"> make observations uses appropriate sense make observations when using equipment Begin to use the right science vocabulary to describe things and observations 	<p>Predicting and planning:</p> <ul style="list-style-type: none"> with help, suggest some ideas with reasons suggest simple ideas to test 	<p>Questioning:</p> <ul style="list-style-type: none"> ask simple questions based on task in-hand ask simple questions and begin to realise they can be answered in different ways 	<p>Performing:</p> <ul style="list-style-type: none"> can use simple equipment related to task independently know they need two or more tests in order to compare findings be able to explore an object by deciding which sense to use with help make suggestions about how to collect data use simple texts to find information 	<p>Identifying and classifying:</p> <ul style="list-style-type: none"> to begin to use some features to compare objects, materials and living things to help decide how to sort and group them 	<p>Recording:</p> <ul style="list-style-type: none"> Use whole class pictograms Make whole class simple tables Show comparisons through sorting, tally charts and pictograms Record observations in own way Begin to use school experiment proforma for science experiments as a class 	<p>Evaluating:</p> <ul style="list-style-type: none"> communicate finding findings in simple ways collect evidence to try and answer a question to say what happened is what they expected given two options can see which one is better begin to suggest ways to find out more things they want to know 	<p>Analysing:</p> <ul style="list-style-type: none"> use data on a simple bar graph to ask questions begin to explain what happened drawing on their experience, knowledge and understanding use results to draw conclusions to say what results mean in simple terms which link cause and effect ie: This happens because...
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Scientific Teaching ideas – Animals, including humans

Comparative tests	Identify and classify	Observation over time	Pattern seeking	Research	Big question: assessment opportunity
Is our sense of smell better when we cannot see?	How can we organise all the zoo animals? What are the names for all the parts of our bodies?	How does my height change over the year?	Do you get better at smelling as you get older?	Do all animals have the same senses as humans?	What are animals like?

Scientific Teaching ideas – Materials

Comparative tests	Identify and classify	Observation over time	Pattern seeking	Research	Big question: assessment opportunity
Which materials are the most flexible? Which materials are the most absorbent?	We need to choose a material to make an umbrella. Which materials are waterproof?	What happens to materials over time if we bury them in the ground? What happens to shaving foam over time?	Is there a pattern in the types of materials that are used to make objects in a school?	How are bricks made? Which materials can be recycled?	What are the things I use made from?

Scientific Teaching ideas – Seasonal change

Comparative tests	Identify and classify	Observation over time	Pattern seeking	Research	Big question: assessment opportunity
In which season does it rain the most?	How could you organise the season images into correct season groups?	How much rainfall can we collect in September, January, April and July? What changes do you notice in terms of amount of rainfall?	Does the wind always blow the same way?	Are there plants that are in flower in every season? What are they?	What is it like in Winter, Spring, Summer and Autumn

Teaching ideas – Plants

Comparative tests	Identify and classify	Observation over time	Pattern seeking	Research	Big question: assessment opportunity
Which type of compost grows the tallest sunflower? Which tree has the biggest leaves?	How can we sort the leaves that we collected on our walk?	How does a daffodil bulb change over the year? How does my sunflower change each week? How does the oak tree change over the year?	Do trees with bigger leaves lose their leaves first in autumn? Is there a pattern in where we find moss growing in the school grounds?	What are the most common British plants and where can we find them?	How many types of plant are there?

By the end of Year 1

<p>Animals, including humans</p> <p>As a scientist, I should know:</p> <ul style="list-style-type: none"> • There are many different animals with different characteristics. • Animals have senses to help individuals survive. When animals sense things they are able to respond. • Animals need food to survive. • Animals need a variety of food to help them grow, repair their bodies, be active and stay healthy. 	<p>Materials</p> <p>As a scientist, I should know:</p> <ul style="list-style-type: none"> • There are many different materials that have different describable and measurable properties. • Materials that have similar properties are grouped into metals, rocks, fabrics, wood, plastic and ceramics (including glass). • The properties of a material determine whether they are suitable for a purpose 	<p>Seasonal change</p> <p>As a scientist, I should know:</p> <ul style="list-style-type: none"> • Weather can change • There are lots of different types of weather: Rain, Sun, Cloud, Wind, Snow, etc • Days are longer and hotter in the summer • Days are shorter and colder in the winter • There are four seasons: Spring, Summer, Autumn, Winter 	<p>Plants:</p> <p>As a scientist I should know that:</p> <ul style="list-style-type: none"> • Plants grow from seeds/bulbs • Plants need light and water to grow and survive • Plants are important • We can eat lots of plants
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Year 2	Curriculum Objective	Knowledge/Activity
<p>Autumn Term One</p> <p><i>Muck, Mess and Mixtures</i></p>	<p>Materials</p> <ul style="list-style-type: none"> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. Find out how shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching 	<p>Prior learning in Year 1 In Year 1 children should:</p> <ul style="list-style-type: none"> Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials, including wood, metal, plastic, glass, water and rock, Describe the simple physical properties of a variety of everyday materials. Compare and group together a variety of everyday materials based on their simple properties. <p>Classifying and grouping Materials:</p> <ul style="list-style-type: none"> Describe the simple physical properties of a variety of everyday materials? Compare and group together a variety of materials based on their simple physical properties? Sort and grade a range of materials for a specific property (e.g. smoothness) Relate a material's physical properties to its uses (e.g. describe or demonstrate how a material can be unsuitable for a given task due to its ability to be changed by squashing and bending) Can they describe the properties of different materials using words like, transparent or opaque, flexible, etc.? Can they sort materials into groups and say why they have sorted them in that way? Can they say which materials are natural and which are man-made?
<p>Autumn Term Two</p> <p><i>Towers, Tunnels and Turrets</i></p>	<p>Materials</p> <ul style="list-style-type: none"> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. Find out how shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching <p>Key questions:</p> <ul style="list-style-type: none"> Which rocks are the least crumbly? Which materials absorb the most water? Which material would be the strongest to use as a floor tile? Which fabric would make the softest blanket? The baby has spilt her drink, which material would absorb the drink the best? We want to make a really slippery slide; which liquid would be best to use? Which chocolate will melt the fastest on a warm plate (a model of a warm hand) Which wrapping papers are strong enough to wrap and send a present? Which material could be used to make a waterproof hat for the teacher when she is on the playground at playtime? Which plastic would be flexible enough to make a belt? Which material could I wrap my ice egg / snowman in to stop it melting, or would it make it melt quicker? What could I wrap a chicken egg in to keep it warm when it is waiting to hatch? 	<p>Prior learning in Year 2 Describe how the shape of some materials can be changed by twisting, bending, squashing or stretching Relate a material's physical properties to its uses (e.g. describe or demonstrate how a material can be unsuitable for a given task due to its ability to be changed by squashing and bending)</p> <p>Changing Materials:</p> <ul style="list-style-type: none"> Identify the uses of everyday materials in a familiar location (e.g. school/home), recording their findings Explore and describe how the shapes of solid objects can be changed? (squashing, bending, twisting, stretching) Explain how things move on different surfaces? Identify and describe the range of materials (e.g. wood, metal, plastic, glass, rock, brick, paper and cardboard) that can be used to make a given object (e.g. cup, chair, table or shelter) and its suitability for the purpose Compare significant individuals who have developed useful materials (e.g. Charles Macintosh or John Dunlop) and decide which individual's material is of most use to them Can they explain how materials are changed by heating and cooling? Can they explain how materials are changed by bending, twisting and stretching? Can they tell which materials cannot be changed back after being heated, cooled, bent, stretched or twisted?
<p>Spring Term One</p> <p><i>Land Ahoy!</i></p>	<p>Seasons and how they change</p> <ul style="list-style-type: none"> Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies. 	<p>Prior learning: In Year 1 children should: Name a range of different types of weather from pictures or sounds Describe some positive and negative effects of the weather for ourselves and our environment Observe and record the weather on a chart or a table Observe and describe weather associated with the seasons Understand how day length varies over a year and link to the different seasons</p> <p>Seasonal change (in greater depth) / Working scientifically</p> <ul style="list-style-type: none"> Identify less familiar weather conditions that are more common in other parts of the world Explain how and why the weather influences our choice of clothing and affects what we do Identify patterns and similarities and differences within recorded weather over a given period of time Make comparisons to other parts of the world where day and length changes to a greater or lesser degree, such as the Arctic or equatorial regions

<p>Spring Term Two</p> <p><i>Street Detectives</i></p>	<p>Animals, including humans</p> <ul style="list-style-type: none"> • Know that animals, including humans, have offspring which grow into adults • Know the basic stages in a life cycle for animals, including humans. • Find out and describe the basic needs of animals, including humans, for survival (water, food and air). • Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. <p>Key questions:</p> <ul style="list-style-type: none"> • How long do should my pets live for? • Do all animals grow and live the same way? • Do bigger animals live longer? • Why are we all different heights? • How and why do we grow and change? 	<p>Prior learning in Year 1 In Year 1 children should:</p> <ul style="list-style-type: none"> • Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. • Identify and name a variety of common animals that are carnivores, herbivores and omnivores. <p>Animals, including humans:</p> <ul style="list-style-type: none"> • Name and match animals to their offspring • Identify the basic needs of animals and humans for survival, including good nutrition (eating the right amount of different types of food), regular exercise and hygiene • Describe the life-cycle of some common animals and humans • Explain simply how humans and some familiar animals change as they grow • Recognise the need for animals and humans to grow and reproduce • Know that animals, including humans, have offspring, which grow into adults • Find out about and describe the basic needs of animals, including humans for survival (water, food and air) • Explain why animals have offspring which grow into adults? • Describe why exercise, balanced diet and hygiene are important for humans?
<p>Summer Term One</p> <p><i>Wriggle and Crawl</i></p>	<p>Living things and their habitats</p> <ul style="list-style-type: none"> • Explore and compare the difference between things that are living, dead and things that have never been alive. • Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. • Identify and name a variety of plants and animals in their habitats, including micro habitats. • Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name the different sources of food. <p>Key questions :</p> <ul style="list-style-type: none"> • How to animals eat? • Do all animals eat the same thing? • Which animals hunt, and which animals are hunted? Why? • What animals live in our school environment? • How are animals and plants 'adapted' to live in their habitats • Why do animals and plants like to live in different places? • How do seasons affect our animals and plants? • Which animals hibernate and why? • Why do snails hibernate, but slugs do not? • How to habitats change over our school year? 	<p>Prior learning in EYFS In Early Years children should:</p> <ul style="list-style-type: none"> • Comments and questions about the place they live or the natural world. • Shows care and concern for living things and the environment. • Can talk about things they have observed such as plants and animals. • Notices features of objects in their environment. • Comments and asks questions about their familiar world <p>Living things and their habitats:</p> <ul style="list-style-type: none"> • Define the term 'habitat' and 'micro-habitat', giving examples of animals that live in each place. • Sort and classify things according to whether they are dead, alive or have never been alive • Explain the differences between living and non-living things? • Match certain living things to the habitats they are found in? • Describe how a habitat provides for the basic needs of things living there? • Describe a range of different habitats? • Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend of each other • Construct a simple food chain that includes humans as the top consumer - describe how animals obtain their food from plants and other animals • Describe some of the life processes common to plants and animals, including humans?
<p>Summer Term Two</p> <p><i>The Scented Garden</i></p>	<p>Plants</p> <ul style="list-style-type: none"> • Observe and describe how seeds and bulbs grow into mature plants. • Find out and describe how plants need water, light and warmth to grow and stay healthy <p>Key questions:</p> <ul style="list-style-type: none"> • Do cress produce seeds, how could we find out? • Do all plants produce flowers and seeds? • What is different between freshly cut and planted flowers? • Do plants flower all year round? • What are flowers for? • What happens to a plant after it has produced seeds? 	<p>Prior learning in Year 1 In Year 1 Children should:</p> <ul style="list-style-type: none"> • Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. • Identify and describe the basic structure of a variety of common flowering plants. • Identify and name the roots, trunk, branches and leaves of trees. <p>Plants</p> <ul style="list-style-type: none"> • Observe and describe how seeds and bulbs grow into mature plants • Find out and describe how plants need water, light and suitable temperature to grow and stay healthy. • Identify what eats plants as a food source and recognise simple food chains. • Sort seeds and bulbs into groups according to physical features. • Describe the different plant parts and give examples of different food that we eat which are derived from these plant parts (e.g. rhubarb – stem, carrot – root) • Explain how plants are suited to their habitats and give examples of plants growing in different habitats. • Describe how plants grow, identifying what a plant needs for healthy growth and survival. • Recognise that plants produce seeds in order to reproduce and generate new plants. • Describe how bulbs help plants to grow in winter.

Working scientifically

<p>Observing:</p> <ul style="list-style-type: none"> • make observations and comparison using equipment following simple instructions • use right science vocabulary to describe things and observations • use first hand experiences and with help, simple information sources to answer questions 	<p>Predicting and planning:</p> <ul style="list-style-type: none"> • suggest what might happen and give a reason for their answer • think about how to collect evidence and whether comparisons and test are fair and unfair • choose equipment that can be used and explain their choice 	<p>Questioning:</p> <ul style="list-style-type: none"> • ask simple questions and realise they can be answered in different ways. • use different enquiry to answer questions 	<p>Performing:</p> <ul style="list-style-type: none"> • with minimal help choose and use simple equipment to measure volume, time and distance • use a range of equipment sensibly and safety • to begin to think about whether a test is fair or unfair 	<p>Identifying and classifying:</p> <ul style="list-style-type: none"> • to begin to identify differences, similarities and change • to use features to compare objects, materials and living things and help decide how to sort and group them • give reasons for classifying in a particular way 	<p>Recording:</p> <ul style="list-style-type: none"> • Record observations in a variety of ways, including tables charts, pictograms, block graph and diagrams • Transfers data to a graph with axis drawn • Use school experiment proforma to record individually 	<p>Evaluating:</p> <ul style="list-style-type: none"> • say what happened was what they expected and why • they recognise why it is important to collect data to answer questions • can say one way to make the experiment better • recognise and explain why it is fair • give cause and effect explanations 	<p>Analysing:</p> <ul style="list-style-type: none"> • say what they have found out using scientific vocabulary to explain thoughts • use results to draw conclusions with reasons • explain observations and simple patterns in recorded measurements
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Scientific Teaching ideas – Animals, including humans

Comparative tests Do amphibians have more in common with reptiles or fish? Do bananas make us run faster?	Identify and classify Which offspring belongs to which animal? How would you group things to show which are living, dead, or have never been alive?	Observation over time How does a tadpole change over time? How much food and drink do I have over a week?	Pattern seeking Which age group of children wash their hands the most in a day?	Research What food do you need in a healthy diet and why? What do you need to do to look after a pet dog/cat/lizard and keep it healthy?	Big question: assessment opportunity Do living things change or stay the same?
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Scientific Teaching ideas – Materials

Comparative tests Which shapes make the strongest paper bridge? Which material would be best for the roof of the little pig's house?	Identify and classify Which materials will float and which will sink? Which materials will let electricity go through them, and which will not? Which materials are shiny and which are dull?	Observation over time How long do bubble bath bubbles last for? What will happen to our snowman?	Pattern seeking How do materials change with heat? leave outside in sunshine/windowsill/radiator? How does amount of water affect the strength of a kitchen towel?	Research How have the materials we use changed over time? How are plastics made?	Big question: assessment opportunity Can we change materials? How do we choose the best material?
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Scientific Teaching ideas – Living things and their habitats

Comparative tests Which pets are the easiest to look after? Is there the same level of light in the evergreen wood compared with the deciduous wood?	Identify and classify How would you group these plants and animals based on what habitat you would find them in?	Observation over time How does the park pond change over the year?	Pattern seeking What conditions do woodlice prefer to live in? Which habitat do worms prefer? where can we find the most worms?	Research How are the animals in Australia different to the ones that we find in Britain? How does the habitat of the Arctic compare with the habitat of the rainforest?	Big question: assessment opportunity Why do different animals live in different places?
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Teaching ideas – Plants

Comparative tests Do cress seeds grow quicker inside or outside?	Identify and classify How can we identify the trees that we observed on our tree hunt?	Observation over time What happens to my bean after I have planted it?	Pattern seeking Do bigger seeds grow into bigger plants	Research How does a cactus survive in a desert with no water?	Big question: assessment opportunity What should I do to grow a healthy plant?
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By the end of Year 2

Animals, including humans: As a scientist, I should know: <ul style="list-style-type: none"> • Animals move in order to survive. • Different animals move in different ways to help them survive. • Exercise keeps animal's bodies in good condition and increases survival chances. • All animals eventually die. • Animals reproduce new animals when they reach maturity. • Animals grow until maturity and then do not grow any larger. 	Materials As a scientist, I should know: <ul style="list-style-type: none"> • Materials can be changed by physical force (twisting, bending, squashing and stretching) 	Living things and their habitats: As a scientist, I should know: <ul style="list-style-type: none"> • Some things are living, some were once living but now dead and some things never lived. • There is variation between living things. • Different animals and plants live in different places. Living things are adapted to survive in different habitats. • Environmental change can affect plants and animals that live there. 	Plants: As a scientist, I should know: <ul style="list-style-type: none"> • Plants grow from seeds/bulbs • Plants need light, water and warmth to grow and survive • Flowers make seeds to make more plants (reproduce) • Plants are important • We need plants to survive (to clean air, to eat) • We can eat different parts of the plants (leaves, stems, roots, seeds, fruit)
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Greater Depth in Key Stage One

Year 1 – Plants, and Animals, including Humans

Year 1 Greater Depth		
<ul style="list-style-type: none"> ● Can they begin to describe what each part of a plant does? (e.g. roots, stem, leaves, petals, pollen) on a range of plants. 	<ul style="list-style-type: none"> ● Can they begin to classify animals according to a number of given criteria? ● Can they point out differences between living and non-living things? 	<ul style="list-style-type: none"> ● Can they name some parts of the human body that cannot be seen? ● Can they say why certain animals have certain characteristics?

Year 1 – Everyday Materials and Seasonal Changes

Year 1 Greater Depth	
<ul style="list-style-type: none"> ● Can they describe things that are similar and different between materials? ● Can they explain what happens to certain materials when they are heated, e.g. bread, ice, chocolate? ● Can they explain what happens to certain materials when they are cooled, e.g. jelly, heated chocolate? 	<ul style="list-style-type: none"> ● Can they observe features in the environment and explain that these are related to a specific season? ● Can they observe and talk about changes in the weather? ● Can they talk about weather variation in different parts of the world?

Year 1 – Working Scientifically

Year 1 Greater Depth			
<ul style="list-style-type: none"> ● Can they find out by watching, listening, tasting, smelling and touching? 	<ul style="list-style-type: none"> ● Can they give reasons for their answers? 	<ul style="list-style-type: none"> ● Can they discuss similarities and differences? ● Can they explain what they have found out using scientific vocabulary? 	<ul style="list-style-type: none"> ● Can they make accurate measurements using non-standard measurements i.e. unifix

Year 2 – Living things and their Habitats, Animals including Humans and Plants

Year 2 Greater Depth		
<ul style="list-style-type: none"> Can they name some characteristics of an animal that help it to live in a particular habitat? 	<ul style="list-style-type: none"> Can they explain that animals reproduce in different ways? 	<ul style="list-style-type: none"> Can they describe what plants need to survive and link it to where they are found? Can they explain that plants grow and reproduce in different ways?

Year 2 – Materials

Year 2 Greater Depth	
<ul style="list-style-type: none"> Can they describe the properties of different materials using words like, transparent or opaque, flexible, etc.? Can they sort materials into groups and say why they have sorted them in that way? Can they say which materials are natural and which are man-made? 	<ul style="list-style-type: none"> Can they explain how materials are changed by heating and cooling? Can they explain how materials are changed by bending, twisting and stretching? Can they tell which materials cannot be changed back after being heated, cooled, bent, stretched or twisted?

Year 2 – Working Scientifically

Year 2 Greater Depth				
<ul style="list-style-type: none"> Can they suggest ways of finding out through listening, hearing, smelling, touching and tasting? 	<ul style="list-style-type: none"> Can they say whether things happened as they expected and if not why not? 	<ul style="list-style-type: none"> Can they suggest more than one way of grouping animals and plants and explain their reasons? 	<ul style="list-style-type: none"> Can they use information from books and online information to find things out? 	<ul style="list-style-type: none"> Can they begin to independently consider controlling variables to create a fair test?

Science Vocabulary Progression

Topic	Nursery	Reception	Year 1	Year 2
Animals, including humans	<p>Head, body, eyes, ears, mouth, teeth, leg, arm, hands, fingers, feet, toes</p> <p>Name some domestic animals</p> <p>Name some farm animals</p>	<p>neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth, name more body parts building on prior knowledge</p> <p>Name animals building on prior knowledge</p>	<p>palm tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves Including parts of the body linked to RSE teaching (penis, anus, vulva, vagina) Senses – touch, see, smell, taste, hear, fingers (skin), eyes, nose, ear and tongue</p> <p>name more body parts building on prior knowledge</p> <p>common animals</p> <p>Fish, amphibians, reptiles, birds, mammals, pets, herbivore, omnivore, carnivore, meat,</p> <p>Name animals from different animal groups such as: lion, tiger, , shark, killer whale, eagle, hawk, plants, hamster, guinea pig, tortoise, badger, human, bear,</p>	<p>Additional to EYFS and Year 1 vocabulary</p> <p>Offspring, grow, adults, nutrition, reproduce, develop, survival, water, food, air, exercise, heartbeat, breathing, hygiene, germs, disease, food types (E.g. – meat, fish, vegetables, bread, rice, pasta)</p> <p>life cycle, young, reproduction, growth, child, stages, egg-chick-chicken, egg-caterpillar-pupa-butterfly, spawn-tadpole-frog, lamb-sheep, baby-toddler-child-teenager-adult</p>
Materials	<p>Shiny, not shiny, soft, hard, cold, bend, object</p>	<p>Touch, shiny, hard, rough, soft, smooth, pour, drip, full, empty, cold, freezing, slippery</p>	<p>Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay</p> <p>properties, hard, soft, stretch, stiff, shiny, dull, rough, smooth, bendy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see-through, not see through,</p> <p>metal – coins, cans, cars, table, legs</p> <p>wood – matches, floors, telegraph poles</p> <p>spoons – plastic, wood, metal</p>	<p>Additional to EYFS and Year 1 vocabulary</p> <p>Properties of materials – as for Year 1 plus opaque, transparent and translucent, reflective, non-reflective, flexible, rigid Shape, push/pushing, pull/pulling, twist/twisting, squashing, bending, twisting, stretching</p> <p>John Dunlop- rubber</p> <p>Charles Macintosh- waterproof fabric</p>
Seasonal change	<p>Sun, rain, wind, snow, cold, warm, dark, light, night</p>	<p>Weather (Sunny, rainy windy, snowy, thunderstorm, hail, fog, cloudy, drizzle) Seasons (winter, summer, spring, autumn) Day, dark, light, night, moon</p>	<p>Season, spring, summer, autumn, winter, weather, hot/ warm, cool/ cold, sun/ sunny, cloud/ cloudy, wind/ windy, rain/ rainy, snow/ snowing, hail/ hailing, sleet, frost, fog/ mist, ice/ icy, rainbow, thunder, lightning, storm, light/ dark, day/ night,</p>	<p>Season, spring, summer, autumn, winter, weather, hot/ warm, cool/ cold, sun/ sunny, cloud/ cloudy, wind/ windy, rain/ rainy, snow/ snowing, hail/ hailing, sleet, frost, fog/ mist, ice/ icy, rainbow, thunder, lightning, storm, light/ dark, day/ night,</p>
Plants	<p>Plant, flower, grow, seed, sun, water, light, warm</p>	<p>Flowers, petals, leaves, seeds, bulbs, trees, branch, sunflower, roses, sunlight, water, soil, roots, stem, grow, tall, short, plant, fruit,</p>	<p>Leaf, leaves, flower, blossom, petal, fruit, root, stem, stalk, bud, berry,</p> <p>tree, branch, trunk, bark, deciduous, evergreen, seeds, bulbs, plant, blossom, grow, sunlight, water, soil</p> <p>Trees – oak, ash, birch, chestnut, beech, conifer, holly, pine.</p> <p>Garden plants – pansy, sunflower, rose, lavender, fuchsia</p> <p>Wild flowering plants – daisy, ivy, buttercup, nettles, dandelion</p>	<p>Additional to EYFS and Year 1 vocabulary</p> <p>common wild plants, nutrition, water, light, shade, sunlight, suitable, temperature, warm, cool, grow, healthy, germination, reproduction</p>

Living things and their habitats				<p>Additional to EYFS vocabulary</p> <p>Living, dead, never alive, alive, healthy never living, energy, habitats, micro-habitats, food, food chain, predator, prey, survive, survival, grow, reproduce, depend, sun-grass-cow-human,</p> <p>Habitats – woodland, coastal, rainforest, arctic, dessert, ocean, river, seashore, mountain Microhabitats – short grass, flowers, under leaves, in and on soil, logs, leaf, litter, stony path, under, bushes, shelter,</p> <p>Conditions: hot/warm/cold dry/damp/wet bright/shade/dark</p>
Working Scientifically	sort, group, compare, describe	Question, answer, observe, equipment, identify, sort, group, record, compare, describe,	Question, answer, observe, observing, equipment, identify, classify, sort, group, record, diagram, chart, map, data, compare, contrast, describe,	Question, answer, observe, observing, equipment, identify, classify, sort, group, record, diagram, chart, map, data, compare, contrast, describe, Biology, chemistry, physics

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